U.S. Army awards INL employees with certificate of appreciation

Since 1993, Idaho National Laboratory has supported the U.S. Army's 20th Support Command and the 22nd Chemical Battalion through the development of award-winning technologies like the Hazmat Cam and the Portable Isotopic Neutron Spectroscopy System. In January, the Army formally honored the laboratory and several employees with a certificate of appreciation.

During the ceremony, Lt. Col. Patrick Terrell commended INL and its employees for their expertise, commitment to service and willingness to go the extra mile for the men and women in uniform. Terrell oversees the Army's chemical, biological, radiological, nuclear and explosive (CBRNE) operations for the 22nd Chemical Battalion--the military's elite unit for responding to these types of threats.

INL has a long history of supporting the U.S. military through technology development, training and support services, but it was INL's commitment to a new program, which began in 2005, that created the strong partnership between the laboratory and the 22nd Chemical Battalion.

Photo: Hot saws

Military-grade equipment such as these hot saws are packaged into custom containers and shipped to responding CBRNE teams.

CBRNE Systems Integration Project

Following the terrorist attacks of 9/11, the Army anticipated a need for additional soldiers trained to respond to chemical and biological incidents. The number of nations and non-national terrorist and criminal organizations capable of developing, possessing and deploying chemical, biological, radiological, nuclear and high yield explosive weapons is steadily increasing.

In order to concentrate on the development of plans, procedures complex training programs, and the buildup of trained soldiers, the 22nd Chemical Battalion needed assistance with the concurrent buildup of specialty equipment. That's where INL came in.

Known as the CBRNE Systems Integration Project, INL staff members work directly with the soldiers and commanders of the Army's 22nd Chemical Battalion to ensure that the technology and equipment they need to handle any situation are available and ready for use. During CBRNE operations, responding teams never know what they might encounter, so a wide range of technical equipment is required.

To be able to perform the mission of identification, verification and "render-safe," the soldiers need rugged, sophisticated equipment. To assist the Army in this important mission, INL established a special procurement protocol with the Army allowing the necessary equipment to be ordered quickly and shipped to Idaho from a variety of locations and vendors across the U.S. and world. The protocol was required to meet special provisions for military use-only equipment.

Once in Idaho, the equipment is taken to an INL fabrication facility where information such as serial numbers, part numbers and warranty information is collected. Each piece is then measured for proper size, dimensions and shape, so that custom foam packaging and ruggedized cases can be fitted to secure the items in transit. Most equipment also has to be powder-coated with black paint to conceal any bright colors or shiny labels that might later become a target for snipers or insurgents.

Once the plastic roto-molded cases are sealed and labeled, they are loaded into large aluminum containers about the size of a commercial refrigerator. The aluminum containers are then placed inside a military Internal Airlift/Helicopter Slingable Container Unit better known as an ISU-90. Each ISU-90 is transported by flatbed truck to designated staging locations and eventually is airlifted with responding teams to incidents or training missions.

According to Terrell, the work being done with INL saves the Army the time and logistics associated with handling massive equipment inventories and maintenance duties.

"This program allows us to focus on our primary task of training and responding, as opposed to spending hundreds of hours dealing with individual vendors," said Terrell. "This process has become an effective way for us to match the build-up of human forces with material resources."

For more than a decade, the Army has relied on the expertise, training and services offered by engineers and researchers at INL. Between 1992 and 1995, laboratory engineers assisted the Army with the safe disposal of old munitions using INL's award-winning Portable Isotropic Neutron Spectroscopy system, and by developing Mobile Munitions Assessment System vehicles that have been used to recover old, unexploded ordinance from Maryland to California. In 2003, during the initial stages of operations within Afghanistan and Iraq, INL provided equipment support to Army personnel engaged in combat.

Today, a team of INL specialists is working to supply each CBRNE team with a mix of equipment ranging from technologies developed at INL--such as the Hazmat Cam and PINS system--to more common items such as wireless radios, door breaching systems and gas chromatographs.

A major advantage INL offers the Army is its diverse range of real-life testing environments and a competent work force.

"We have 3,600 employees with backgrounds from nuclear technology to weapon systems," said INL project manager Don Verrill. "In the past, we've gone to our scientists and security forces at the site and used their facilities and expertise to test this equipment under a real-world environment, before it's needed on an actual mission."

According to Verrill, the testing and evaluation offered at INL ensures that all the equipment is functionally operational and ready to perform under the most demanding conditions.

Photo: Troop supply containers

Army CBRNE teams rely on hundreds of pieces of specialized equipment that are packaged into containers at INL.

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The INL team is frequently called upon to provide immediate support to missions. During November 2004, the INL team provided equipment support to an already deployed unit near the US-Canadian border, and also assisted in preparing equipment in support of the presidential inauguration in January 2005.

Meeting the Challenge

Recently Terrell visited INL to get an update on the program. Following a tour of the facilities and meeting with key employees, he emphasized the importance of the program.

"When you're deployed in Iraq, there isn't a RadioShack around the corner to get lightbulbs or batteries for your flashlights," said Terrell. "The equipment we use has to work right the first time and everytime."

According to Terrell, INL is meeting that challenge.

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